

PATENT
Customer No. 22,852
Attorney Docket No. 07810.0121-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Michael J. GARSKA et al.)
Application No.: 10/531,470) Group Art Unit: 3653
Filed: November 21, 2005) Examiner: Kalyanavenka K. Kumar
For: METHOD OF TREATING AN) Confirmation No.: 7009
AQUEOUS SUSPENSION OF)
KAOLIN)

MAIL STOP: AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 43313-1450

Via EFS-Web

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

In reply to the final Office Action mailed August 27, 2008 ("final Office Action"), and in conjunction with a Notice of Appeal under 37 C.F.R. § 41.31, an appeal fee payment, a Petition requesting a two-month extension of time to extend the due date to January 27, 2009, and an extension-of-time fee payment filed concurrently herewith, Applicant respectfully requests a pre-appeal brief review of this application.

I. Claim Rejection under 35 U.S.C. § 102(b) based on Greenhill

In the final Office Action mailed August 27, 2008, claims 1-40 were rejected under 35 U.S.C. § 102(b) based on Int'l Pat. App. No. WO 68160 to Greenhill et al. ("Greenhill") (citations to purportedly "equivalent" U.S. Pat. No. 6,615,987). For at least the reasons outlined in Applicant's Request for Reconsideration filed November 20,

2008 ("Request"), as supplemented herein, Applicant respectfully requests reconsideration and withdrawal of this claim rejection.

Claims 1, 35, and 38 are the only independent claims included in the claim rejection, and each of those claims is directed to "[a] method for the treatment of kaolin particulate material" In particular, independent claim 1 recites, *inter alia*, "selecting at least one selective flocculation polymer" that "has a measured anionicity ranging from about 1% to about 12%" Independent claim 35 recites, *inter alia*, "selecting at least one selective flocculation polymer, wherein the at least one polymer has a narrow range of variability for measured anionicity and has a measured anionicity ranging from about 1% to about 12%" Finally, independent claim 38 recites, *inter alia*, "selecting at least one selective flocculation polymer, wherein said at least one selective polymer has been manufactured by a continuous process and has a measured anionicity ranging from about 1% to about 12%"

The rejection statement asserts that Greenhill discloses "selecting at least one selective flocculation polymer, wherein said at least one selective flocculation polymer has a measured anionicity ranging from about 1% to about 12% (col. 8 teaching various polymers)." Final Office Action at 2. Applicant respectfully submits that the assertion indicates an apparent misinterpretation of Greenhill and/or the claims of the present application.

In particular, although Greenhill discloses a variety of organic and anionic polymers, none of those recited polymers corresponds to a selective flocculation polymer having "a measured anionicity ranging from about 1% to about 12%," as recited in the independent claims of the present application. Indeed, col. 8, lines 46-51, to

which the rejection statement refers in purported support of the assertion about what Greenhill discloses, actually discloses:

Because of their commercial availability high molecular weight weakly anionic synthetic polymers such as polyacrylamides containing some replacement, e.g., from 1% to 20% by weight, often from 1% to 15% by weight, especially from 1% to 10% by weight of amide groups by carboxylic groups are suitable.

Greenhill, col. 8, ll. 46-51. Thus, the "1% to 10%" range discussed in Greenhill relates to the percentage of amide groups replaced by anionic carboxylic groups. The notion that such a range of 1% to 10% corresponds to a measured anionicity of a selected flocculation polymer is inaccurate at least because the percentage of replacement carboxylic side groups in the polymer is not equivalent to measured anionicity. The Office's reliance of "Greenhill's teaching of 1% to 10% [of carboxylic groups] being suitable" either misinterprets or ignores the present application's use of "measured anionicity." See Final Office Action at 3.

As used in the present application, "measured anionicity" "refers to the total charge density, which includes charge resulting from the copolymerization reaction (i.e., theoretical charge density), plus the charge contribution originating from hydrolysis of functional groups." (Description at 9, ¶ [029]). Instead of merely reporting the molar percentage of monomers containing an anionic charge group, "measured anionicity" is a titration-based method for measuring the total charge density. (Id. at 16, ¶ [059]). Thus, "measured anionicity" includes not only the charge density contributions from the monomers, but also includes the anionicity that results from hydrolysis of various groups that occurs during a polymerization. (Id.).

Regardless of the percentage of amide groups replaced by a carboxylic group in a polymer, the percentage of carboxylic groups alone is not an indication of "measured anionicity" of that polymer, as that recitation is used in the present application. Although the rejection statement asserts that the 1% to 10% of carboxylic groups is "suitable" to disclose a measured anionicity ranging from 1% to about 12%, such an assertion ignores other contributions present in the meaning of "measured anionicity," as used in the present application. As noted above, "measured anionicity" includes anionicity resulting from hydrolysis of various groups occurring during polymerization, which is incorporated into the measured anionicity results. In contrast, Greenhill does not provide any disclosure indicating that the purported anionicity results from hydrolysis, nor does Greenhill expressly disclose a "measured anionicity" for its polymers. Thus, the rejection statement's reliance on the Greenhill polymer's percentage of carboxylic groups either misinterprets or ignores the present's application use of the term "measured anionicity." For at least these reasons, Greenhill does not disclose the selection of at least one selective flocculation polymer with a "measured anionicity ranging from about 1% to about 12%," as recited in each of independent claims 1, 35, and 38. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-40 under 35 U.S.C. § 102(b) based on Greenhill.

Moreover, with respect to independent claim 35, the rejection statement fails to identify any disclosure in Greenhill that supports the rejection statement's implied assertion that Greenhill discloses "selecting at least one selective flocculation polymer . . . [having] a narrow range of variability," as recited in claim 35. Indeed, the rejection statement is silent with respect to that recited subject matter. See Final Office Action at

2-3. As used in the present application, "narrow range of variability refers to a narrow range of variability in a measured property on a batch-to-batch basis." (Description at 9, ¶ [030]). For example, the range of variability is deemed to be narrow when the measured property over fifteen batches has a 3 sigma of +/- 10% of the measured mean. (*Id.*) Greenhill does not include any express or inherent disclosure for selecting a polymer with a narrow range of variability, as the phrase is used in the present application. For at least this additional reason, Greenhill fails to disclose all of the subject matter recited in independent claim 35.

II. Conclusion

For at least the reasons set forth above, independent claims 1, 35, and 38 are patentably distinguishable from Greenhill. Dependent claims 2-34, 36, 37, 39, and 40 are patentably distinguishable for at least the same reasons. Therefore, Applicant respectfully requests reconsideration and withdrawal of the § 102(b) claim rejection based on Greenhill and allowance of all of pending claims 1-40.

Please grant any extensions of time required to enter this Pre-Appeal Brief Request for Review and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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By: 
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Dated: January 27, 2009